1982

ANNUAL REPORT

INSECT AND DISEASE CONDITIONS IN WEST VIRGINIA

TO

THE UNITED STATES FOREST SERVICE, MORGANTOWN, WEST VIRGINIA

LOOPER COMPLEX

During May-June of 1982 approximately 100,000 acres of hardwoods were completely defoliated by the Linden Looper, Enannis tilillaria, half-winged geometer Phigalea titea, fall cankerworm Alsophila pometaria, oak leaf rollers and [illegible]. Additionally the loopers caused moderate to light damage to over one million acres. The areas affected were Jefferson, Berkeley, Morgan, Hampshire, Mineral, Hardy, Grant and Pendleton Counties

Populations have collapsed due to Tachinid flies and predaceous beetles (Calasoma sp.) White oaks were affected the most. Some mortality is occurring. No damage from loopers noted elsewhere in the state. No control measures planned.

Eastern Tent Caterpillar - Malacosoma americana

Populations of this insect collapsed during 1982. Numerous nests were sighted but defoliation did not occur. Very low populations expected 1983.

Fall Webworm - Hyphantria cunea

Common throughout the state but no large areas affected.

Periodical Cicada - Brood V - The cicada made its appearance this year in central and northern West Virginia. This brood is one of the largest that we have in West Virginia. Much damage to trees was noted throughout the range of the cicada.

Locust leaf miner - Xenochalepus dorsalis

The locust leaf miner caused heavy damage (brown leaves) to black locust in the east central and Eastern Panhandle of West Virginia. The miner has subsided somewhat in southern West Virginia and is becoming more abundant in the following counties: Upshur, Nicholas, Webster, Tucker, Randolph, Greenbrier, and all Eastern Panhandle counties.

Sycamore lacebug - Heavy throughout the state - third year for heavy damage.

Larger Elm Leaf Beetle - Heavy throughout state - 3rd year of defoliation.

Walking Sticks - Populations are down. Really needed them this fall for food (Turkey). No Mast.

Pine spittle bug - Heavy this year in many locations. Examined several plantations and found to be cause of damage to trees.

Pales Weevil - Hylobius pales - Seems to be on the increase. Found in very high numbers in several plantations.

White Pine Bark Aphid - Found to be extremely heavy on white pine in Christmas tree plantations throughout western section of the state.

BIOLOGICAL CONTROL PROGRAM

Found Ooencyrtus kuvanae on gypsy moth egg masses in Eastern Panhandle. Are keeping up with the advancing populations.

Apanteles flavicoxis released in Eastern Panhandle this year.

GYPSY MOTH

The trapping program for 1982 revealed that 24,586 moths were caught in 27 counties. The following is a breakdown of catches: Jefferson 6,314; Berkeley 6,974; Morgan 4,585; Hampshire 3,586; Mineral 1,602; Hardy 656; Grant 219; Pendleton 24; Preston 507; Tucker 4; Randolph 1; Barbour 1; Monongalia 22; Lewis 1; Wetzel 1; Marshall 14; Ohio 13; Brooke 23; Hancock 15; and the following are new county records - Tyler 1; Doddridge 1; Ritchie 1; Upshur 7, Webster 3; Nicholas 7; Mercer 3; and Mason 1.

The Counties of Jefferson, Berkeley and Morgan are generally infested and thousands of egg masses have been found. Defoliation is expected in 1983. No estimates at present time.

The Counties of Hampshire and Mineral are infested (several egg masses found and numerous larvae collected) but no defoliation is expected in 1983.

Cast skins of larvae have been found in Grant County close to the Maryland border. No other evidence of infestation.

For next year trapping program - burlap banding, NPV study, Creosote egg masses and destroy when found in small areas.

No plans for abatement in 1983.

Egg mass surveys currently being conducted in infested counties. Surveys will be conducted in other areas of high male moth catch.

Dutch Elm Disease - Ceratocystis ulmi

Dutch elm disease is probably the single most important forest and shade tree disease problem in West Virginia. Diseased trees have been observed throughout the state with incidence heaviest along the major river drainages.

Anthracnose of Hardwoods

Sycamore anthracnose incidence decreased from a moderate level in 1981 to a low level in 1982. Only light infections were observed on trees throughout the state.

Maple anthracnose was observed causing light to moderate damage to sugar and Norway maples throughout the state.

Bullseye Leaf Spot - Cristulariella pyramidalis

Bullseye leaf spot incidence was light to moderate this year on maples, ash and other hardwoods.

Actinopelte Leaf Spot - Actinopelte dryina

This a fairly commonly observed disease of pin oaks in West Virginia. Generally it is of little consequence but it may cause premature defoliation.

Rhizosphaera Needlecast - Rhizosphaera kalkoffi

This disease has now been reported in Kanawha, Fayette, Wayne, Morgan and Ritchie Counties. Surveys will be continued to determine the extent of this disease in West Virginia on Colorado Blue spruce.

Lophodermium Needlecast - Lophodermium pinastri

Lophodermium needlecast was observed causing only very light damage to Scotch pine plantings in the state.

Naemacyclus Needlecast - Naemacyclus minor

Naemacyclus needlecast is a fairly common disease in Scotch pine plantings. A number of Christmas tree growers suffered significant needlecast problems due to this pathogen in 1982.

Cytospora Canker - Cytospora kunzei

This disease has been observed causing moderate to extensive damage to Norway spruces and Colorado blue spruces in the state. Usually only a few trees at any one location are diseased.

Atropellis Canker - Atropellis tingens

This is a problem in several Scotch pine plantings in the state. Infected branches on trees turn brown and give the tree a flagged appearance. No main-stem cankers were noted.

Annosus Root Rot - Heterobasidium annosum

Annosus root rot occurs in several conifer stands in the state. Generally it is not considered a major problem in West Virginia.

Pinewood Nematode - Bursaphelenchus xylophylus

The pinewood nematode has been isolated from 4 different species of pine. These include: White pine, Scotch pine, Austrian pine, and Red pine. To date we have isolated the pinewood nematode from dying conifers in 13 of West Virginia's 55 counties. These 13 counties are spread throughout the state.

Pine Root Decline - Verticicladiella procera

Pine root decline continues to be a problem in many of our white pine plantations. Furthermore we have isolated this pathogen from dying white pines in natural stands.

Beech Bark Disease Complex - Nectria galligena and Cryptococcus fagisuga

The disease comples was initally located in August 1981. Subsequent surveys have revealed that the scale infestation occurs over 70,000 acres of Monongahela National Forest land in Randolph and Pocahontas Counties. At the Gaudineer Scenic Area, Nectria galligena was found in association with the beech scale insect. Beech snap was beginning to occur in the stand. The fungus Nectria coccinea var. faginata has not been found in the state to date.

Phytophthora Root Rot - Phytophthora cinnamomi

The root rot pathogen P. cinnamomi has been implicated in a Fraser fir mortality problem in West Virginia. The apple baiting technique was employed to isolate this pathogen from symptomatic Fraser fir in 5 Christmas tree plantations and a seedling bed at the State Forest Seedling Nursery at Parsons. Furthermore, we have isolated this pathogen from the roots of dead and dying rhododendrons from a private nursery. To date this pathogen has been isolated from symptomatic Fraser fir and rhododendrons in 7 counties.

Oak Wilt - Ceratocystis fagacearum

Sixteen high oak wilt incidence quadrangles in the eastern panhandle and 20 high oak wilt incidence quadrangles in the south western section of West Virginia were flown during the summer. There was a slight increase in disease incidence for these quadrangles as compared to last year. In addition the following low incidence counties were flown: Randloph, Barbour, Upshur, Nicholas, Pocahontas, Monongalia, Presion, Marion, Taylor and Harrison. No suspect oak wilt trees were spotted in the low incidence counties or in Tucker and Webster counties where oak wilt has never been reported.